

Date: Thu, 18 Mar 93 04:30:12 PST
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #339
To: Info-Hams

Info-Hams Digest Thu, 18 Mar 93 Volume 93 : Issue 339

Today's Topics:

 Crystal Oscillator Info? (2 msgs)
 Freebies from ARRL HQ
 Ham only dual-bander HT?
 Info about 'Mackay OSW-2000'
 Kenwood TM741 selectivity problem HELP!!!
 Make Licence more practically based
 Matching antennas to low cost receivers?
 Repeater in simplex band ??
 TESTS IN FAIRBANKS?????
 What about those FAQing number stations anyway? (2 msgs)

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Thu, 18 Mar 1993 03:00:33 GMT
From: usc!zaphod.mps.ohio-state.edu!moe.ksu.ksu.edu!crcnis1.unl.edu!
news.unomaha.edu!nevada.edu!jimi!physics.unr.edu!nimbus!mswmod@network.UCSD.EDU
Subject: Crystal Oscillator Info?
To: info-hams@ucsd.edu

Try looking in the 1993 ARRL Handbk, page 11-5. Also check out
some of the radios to see how the ideas are used.

This book is the best \$25 you'll ever spend.

Have fun, "Ron", -=KU7Y=-

Date: 18 Mar 93 04:43:21 GMT
From: usc!howland.reston.ans.net!gatech!prism!gt5876b@network.UCSD.EDU
Subject: Crystal Oscillator Info?
To: info-hams@ucsd.edu

Get a crystal that is some integer multiple of the desired freq then just use a D flip flop 74LS73 (might be a 75) to cut it down to size. Something like a 74xx192 might be needed for odd-ball (i.e. 7) multiples.

--
Rick Farmer
Georgia Institute of Technology, Atlanta Georgia, 30332
Internet: gt5876b@prism.gatech.edu

Date: Thu, 18 Mar 1993 08:14:26 GMT
From: sdd.hp.com!zaphod.mps.ohio-state.edu!howland.reston.ans.net!gatech!gsusgi1.gsu.edu!gsusgi1.gsu.edu!regmad@network.UCSD.EDU
Subject: Freebies from ARRL HQ
To: info-hams@ucsd.edu

lhurder@arrl.org (Luck Hurder KY1T) writes:

>The already-licensed individual might well be interested
>in another free ARRL publication, the ARRL Public Service
>Communications Manual. The PSCM represents the "bible" of
>public service communications, and clearly/concisely
>points out how the ARRL National Traffic System and the
>ARRL Amateur Radio Emergency Service function as a
>cohesive unit to provide the maximum support to the public
>both in times of disaster as well as "normal" times.

>-

>To obtain either of these free ARRL services, please
>provide me with:

>-

- >A. Your name
- >B. Your mailing address
- >C. A Specific request for either of the two services above.

Yea sure I have tried twice and received nothing ?
Joined ARES (picture id and all) informed (as promised) of nothing !

Whats the point.

/-----/-----/-----/-----/	Michael A. de Kraker
/-----/-----/-----/-----/	Georgia State University 404-651-2390
/-----/-----/-----/-----/	Internet:REGMAD@GSUSGI2.GSU.EDU
/-----/-----/-----/-----/	BITNET :REGMAD@GSUVM1 PACKET:KD4FKW@W4Q0

To iterate is human, to recurse devine

Date: Thu, 18 Mar 1993 07:10:55 GMT
From: usc!howland.reston.ans.net!gatech!concert!samba!usenet@network.UCSD.EDU
Subject: Ham only dual-bander HT?
To: info-hams@ucsd.edu

I think folks arn't realizing that the modern-day commercial radios are pretty doggone wideband themselves. Most of the Motorola and Bendix-King land mobile radios I've used have been synthesized and will do 140-174, or 440-512MHz, and suffer NO intermod problems. My Icom IC-U16 will do 430-490MHz and has never gotten one iota of intermod, even when using an external mag-mount (Rx CTCSS was NOT on).

My Alinco DJ-580T, which is a great radio in my opinion, does get a bit of paging when near a few towers. Mostly 2m intermod, but then we don't have much in the way of UHF high power stuff around town.

So what's up with this? It's not that it's impossible to make a wideband HT that has good intermod rejection, it's just apparently expensive, or at least a bit bulky. I've also never seen a dual-band land mobile HT (I hear Yaseu makes one), so that's kinda inconvenient too... I suspect if I had cash, I'd buy two Benxi-King HTs (VHF and UHF), and hope they come out wi8th a dual band rig eventually.

In the mean time, if you're going to buy a ham HT, I guess you'll have to live with intermod. But the elimination of wide band Rx isn't necessarily the solution.

-ks
KD6RCT

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The opinions expressed are not necessarily those of the University of North Carolina at Chapel Hill, the Campus Office for Information Technology, or the Experimental Bulletin Board Service.
internet: laUNCHpad.unc.edu or 152.2.22.80

Date: Thu, 18 Mar 1993 08:23:55 GMT
From: sdd.hp.com!nigel.msen.com!yale.edu!ira.uka.de!scsing.switch.ch!
aristo.tau.ac.il!libra.math.tau.ac.il!dlevy@network.UCSD.EDU
Subject: Info about 'Mackay OSW-2000'
To: info-hams@ucsd.edu

Hi,

I recently saw an article about a product called 'osw-2000' from a company called Mackay , which can be used to send fax and data at 2400 bps over highly noised lines (possibly using HF radio). I would appreciate any information about the product or details on how to contact Mackay.

Thanx , Doron Levy.

e-mail: dlevy@libra.math.tau.ac.il

Date: 17 Mar 93 18:13:24 CST
From: usc!elroy.jpl.nasa.gov!swrinde!zaphod.mps.ohio-state.edu!caen!
kuhub.cc.ukans.edu!baxter@network.UCSD.EDU
Subject: Kenwood TM741 selectivity problem HELP!!!
To: info-hams@ucsd.edu

After several years of using my old TM721, and yearning for a new dual bander with more channels, I finally broke down and bought a new Kenwood TM-741A. Boy, what a disappointment.

One of the big things that I had wanted to do with the 100 channels on UHF is to load in some of the public safety frequencies that I listen to. Unfortunately, once the radio is tuned above 449.995, into the out-of-band region, I get such intermod, that listening to much of anything is pretty useless. Having used an Alinco DR-570T for the past 3 years in my car, and never experiencing such problems, I was not very happy with this 'new' radio.

To describe the problem more exactly, it seems that there is very poor front end selectivity in the UHF section once tuned above 450. I presume that once in the 450-460 range, the front end filters are removed from the RF stage. Is there anyway to fix this problem? Are there any mods out there to eliminate this hash which keeps my squelch open most of the time.

I have not yet performed the official out-of-band mods to the radio,

i.e. removing R54 & R55 -- will this help any matters?

I called Kenwood, and was quite annoyed in their response by their tech. I was told that there is a way to fix the problem, but it is proprietary information, that he couldn't tell anyone how to do it, and that was that.

Well, Kenwood, I have a few more days to try out your new radio before I box it up and buy something else -- unless anyone can tell me a way to get the mixing out of the front end of the UHF receiver.

HELP!!!

Kirk Baxter, N0FPZ

Date: 18 Mar 93 09:19:26 GMT
From: pipex!bnr.co.uk!uknet!uos-ee!ee.surrey.ac.uk!M.Willis@uunet.uu.net
Subject: Make Licence more practically based
To: info-hams@ucsd.edu

In article <1993Mar17.152417.26319@news.acns.nwu.edu>, rdewan@casbah.acns.nwu.edu (Rajiv Dewan) writes:

|> In article <1993Mar17.061702.26843@sequent.com> dale@sequent.com (Dale Mosby) writes:
|> >

|>
|> The highest level of license allowed you to put out 400W. There
|> was however a catch. You had to build your own amp, demonstrate
|> that you understood its working and that it met the law.
|> It would be spot inspected at station by an inspector who would
|> check the working of the amplifier. It had better not be capable of
|> making more than 400W! (The limit). If it passed then that was the
|> amp that you were allowed to use.

|>
|> These are my recollections of a presentation that Relu, KB9HAY,
|> made to our club a year ago. He left Romania in 1990.

|>
|> Rajiv
|> aa9ch
|> Address: r-dewan@nwu.edu
|> Phone: None. Only CW.

Now wouldn't this be a good idea, OK, maybe not to build the amp but to have an inspection and demonstrate how to use it before getting the high power licence.

To get an Extra you have to build the thing too...

Mike

Date: Thu, 18 Mar 93 02:06:15 GMT
From: sdd.hp.com!cs.utexas.edu!geraldo.cc.utexas.edu!slcs.slb.com!leo.asc.slb.com!
sjasca4!jones@network.UCSD.EDU
Subject: Matching antennas to low cost receivers?
To: info-hams@ucsd.edu

MR KEVIN WILLIAMS : EC-FOURTH (willia1@elaine.ee.und.ac.za) wrote:
: I'm starting out in RF design at varsity, and as usual the theory is coming
: thick and fast, but I'm still in the dark when it comes to practical
: matters, LIKE:-
:
: Would one need to _match_ an antenna to the front end of an RF preamp in a
: receiver? My GUESS is that a nice well-defined antenna (like a 2m dipole
: made from 300ohm flat line) is not really a problem. [Although RF
: transformers at that frequency are said to be quite lossy->is that right?
: What is the best way to do this really elegantly?]
:
: However, when it comes to a device like an RF remote-control receiver where
: size is a major factor (esp antenna size!) what does one do? Say for
: instance one is using a short piece of wire, does one assume a high
: impedance antenna and "guestimate" a match? What are typical impedances for
: this kind of antenna?!
:
The usual wisdom in the Ham radio world is that antenna matching is far
more important for the transmitter than for the reciever. As a single data
point, I've noticed that there's around 10dB difference in signals coming
from my old R-390 reciever between when I have the reciever connected to
the antenna through the antenna tuner vs. directly connected to the
antenna.

Most transmitter circuits are really pretty picky about what they're asked
to push watts into. If they get too much bouncing back at them, they do
nasty things, like shut down, or emit smoke (for brief periods).

All reciever circuits work at much lower levels, and so can tollerate having
part of the signal "bouncing" back towards the antenna.

There are other considerations, but these are often the major ones.

--

Disclaimer: The opinions expressed above are mine and not those of Schlumberger
because they are NOT covered by the patent agreement!

Phone: (602) 345-3638 RF: N7RPQ
Snail: Clark Jones, Schlumberger Technologies, 7855 S. River Pkwy #116, Tempe,
AZ 85284-1825

Date: 18 Mar 1993 02:17:05 GMT
From: topaz.bds.com!topaz.bds.com!ron@uunet.uu.net
Subject: Repeater in simplex band ??
To: info-hams@ucsd.edu

> Sounds to me like a remote base link from some repeater. I am
> pretty sure these simplex links are legal as the concept has
> been used from the beginnings of (repeater) time. In the LA
> area we 146.46 was a common (coordinated) remote base output.

Eh? Aren't links an auxilliary operation and hence limited to band
sections none of which exist on 2M?

-Ron

Date: 18 Mar 93 04:50:08 GMT
From: usc!zaphod.mps.ohio-state.edu!uwm.edu!logicse!henson!news.u.washington.edu!
raven.alaska.edu!aurora.alaska.edu!fsrla@network.UCSD.EDU
Subject: TESTS IN FAIRBANKS?????
To: info-hams@ucsd.edu

I recieved MANY answers to my question on MAC software!!!!
Anyway, thanks to all who answered, it was very helpful!!!!
My next question, (good tie-in, huh?) is on a more local
level.....
Is there a schedual for License testing for the Fairbanks, Alaska
area???????
Thanks!!!!!! ROG!

FSRLA@ACAD3.ALASKA.EDU "AND IT FEELS SO REAL, YOU CAN
FEEL THE FEELING....."

Date: 18 Mar 1993 08:32:50 GMT
From: usc!howland.reston.ans.net!newsserver.jvnc.net!yale.edu!ira.uka.de!
Germany.EU.net!Informatik.Uni-Dortmund.DE!kappa!thewes@network.UCSD.EDU
Subject: What about those FAQing number stations anyway?

To: info-hams@ucsd.edu

>I heard its origin was in WWI. The german word for zero is "nine".
>Niner distinguishes the english number from the german one.

That's not quite correct. It is "Null".

Berthold DL3YEI

Date: Thursday, 18 Mar 1993 11:31:10 CET
From: usc!howland.reston.ans.net!newsserver.jvnc.net!gmd.de!dearn!esoc!
wkoehler@network.UCSD.EDU
Subject: What about those FAQing number stations anyway?
To: info-hams@ucsd.edu

In article <2ba79ff3.drone@drone.hazeltine.com>, rosenblu@drone.hazeltine.COM
(Leonard Rosenblum) says:

>
>> Possibly for the same reason the American Military says "niner"
>> instead of nine. I spent 15 years in the Army most of it in
>> the Signal Corps. And I still don't know why!!
>
>I heard its origin was in WWI. The german word for zero is "nine".
>Niner distinguishes the english number from the german one.
>

The German word for zero is not "nine but "null".

English:	Regular German:	German under difficult conditions:
zero	null	nulll
one	eins	einss
two	zwei	zwoh
three	drei	drrei
four	vier	fi-aer
five	fuenf	fuennef
six	sechs	saechs
seven	sieben	siebaen
eight	acht	acht
nine	neun	neu-aen
zero		

Wolf, DL3ZBJ, AB6EL, VK6BGV.

Date: Thu, 18 Mar 1993 00:35:42 GMT
From: amdahl!amdcad!amdc12!brian@uunet.uu.net
To: info-hams@ucsd.edu

References <21870022@hplvec.LVLD.HP.COM>, <1993Mar17.011208.21264@sequent.com>,
<1993Mar17.173912.12800@convex.com>
Subject : Re: Repair my HW-101??

tonyp@convex.COM writes:

> }I noticed that you are on 28.3999574638290 , could you come up a
> }to freq ?"
>
> I'd like to know HOW they can tell that you are off frequency
> when you're operating Silly Side Band, with full carrier suppression,
> and they don't know what your voice sounds like...

I've often pondered this myself. With a little practice, a human can tune SSB quite accurately, even without knowing what the sender's voice sounds like. There must be some information embedded in the signal that allows this. Here's how I think it works:

[total speculation mode on]

Consider the human voice -- each individual sound in a sentence has a distinct frequency spectrum (ie, Fourier transform). This spectrum is largely, but not exclusively, composed of harmonics of some small number of fundamental frequencies. For example, if A represents a 200Hz sound, a word-sound might contain A, 2A, 3A and 4A frequency components.

In a poorly tuned SSB signal, these will come out as A+e, 2A+e, 3A+e, and 4A+e frequency components. Notice that they are no longer harmonics of each other! I'd bet that your brain learns to cue off these harmonic discrepancies in order to tune SSB.

It should be possible (???) to build an automatic SSB tuner that works on the same idea. By capturing a snapshot of speech spectrum and then shifting it to find a "best fit" set of harmonics, it should be possible to deduce how far off the receiver is and then correct it.

[total speculation mode off]

Brian McMinn, N5PSS brian.mcminn@amd.com

Date: 18 Mar 1993 02:27:53 GMT
From: topaz.bds.com!topaz.bds.com!ron@uunet.uu.net
To: info-hams@ucsd.edu

References <9303101707.AA22852@emx.cc.utexas.edu>, <1no011INNk1@network.ucsd.edu>,

<C428vK.LMx@hpuerca.atl.hp.com>1

Subject : Re: Motorola Radios Are/Were Tough

> He came back a month later and signed a 200 unit contract to purchase
> RCA's. His reason, he had not been able to make any of the three fail.

I don't know. We had several RCA SuperCarPhones when we were in college. They had this nasty habit of getting the relays to stick (sometimes in transmit). The standard procedure for fixing the base station was to pick it up and drop it on the floor. A friend with a mobile unit had a large wooden mallet with RCA inscribed on it that he beat on the trunk unit with.

Later on I was in a volunteer fire department. The GE units we had on the equipment (hand held, base and mobile) as well as the Motorola Pak-ratt setup we had on the ambulance never gave us any trouble. We did again have an RCA mutual aid radio and it was generally considered to be worthless.

-Ron

I went from Prog Lines to Micors.

Date: Thu, 18 Mar 1993 06:14:52 GMT

From: usc!cs.utexas.edu!utnut!torn!nott!cunews!freenet.carleton.ca!

Freenet.carleton.ca!ab718@network.UCSD.EDU

To: info-hams@ucsd.edu

References <1o8lnqINNgbi@topaz.bds.com>, <1993Mar17.163740.25018@netcom.com>, <C41pnJ.31G@fc.hp.com>arleton

Reply-To : ab718@Freenet.carleton.ca (Daniel Lavoie)

Subject : Re: Yaesu FT-530 vs. TH-28A

In a previous article, ron@topaz.bds.com (Ron Natalie) says:

>> the FT-470 was decent for a dual-bander.

>

>Actually, for intermod problems the FT470 is WORSE than most other dual
>banders.

>

I own an FT-470 and I find it very sensitive to intermods. One of the reason why most HTs and mobiles are very sesitive to intermodes here in Canada is because pager transmitters are located just above 148MHZ. I don't know any receiver that is tight enough and not be affected by 5KW transmissions at 148MHZ.

Tell me, in the US, around what frequencies are most pager trasmitter
transmitting?

Daniel
VE3DCL

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End of Info-Hams Digest V93 #339
